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MARKETING FARM PRODUCTS- RECENT DEVELOPMENTS AND OUTLOOK

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MARKETING FARM PRODUCTS--RECENT DEVELOPMENTS AND OUTLOOK ^{1/}

Change has been widespread in the marketing of farm products in recent years, as it has in other economic activities. Innovations have been frequent, and increased expenditures for research and development are likely to accelerate the introduction of new technology, new products, and new marketing practices. Widespread adoption of an innovation, however, takes time. In the year ahead, new innovations may be expected; yet the greatest change will come from wider application of earlier innovations.

Some of the major developments in the marketing of farm products in recent years have been:

1. Growth in output of farm products and the products derived from them. One result has been the construction of many new processing plants, warehouses, and other marketing facilities. Often these new facilities were more efficient than those constructed earlier.
2. Technological developments. New and improved products, new facilities, new marketing practices, and improvements in productivity are some of the many consequences of technological change. A new product is likely to bring new investment in plant and equipment. Often the productivity of labor employed in the new plant is greater than that of laborers working with older equipment in an older plant. Further, farm-produced raw materials having special characteristics may be needed for the new product or process. The introduction of new processed products and improvements in existing processed pro-

ducts have increased the proportion of food products and animal feeds sold in processed form. Some technological changes have increased the size of the most efficient plants, but others have made small scale enterprises feasible.

3. Fewer but larger establishments. Often technological changes--improved transportation and communication, changes in equipment, etc.--have been the principal cause.
4. Changes in transportation. Increased competition among different modes of transport has been a major development. It has brought alternative means of transport to many marketing firms, selective decreases in freight rates, and improvements in services. The location of marketing activities has been affected.
5. Public programs. The Federal Government has instituted many programs to aid the less fortunate members of our society by improving their diet. These programs have provided a growing market for farm products. Present efforts to increase earning abilities of persons having low incomes by retraining, area redevelopment, and other means promise to expand markets for farm products. These people would increase their expenditures for food and clothing much more than people with higher incomes as a result of equal increases in earnings.

The following sections of this article illustrate some of these changes.

^{1/} Prepared by Marketing Economics Division, Economic Research Service.

Marketing Services and Resources

Growth in Volume Services

The demand for agricultural marketing services is expected to continue strong in 1966. A large volume of products to be marketed, a high level of consumer income, continued growth in population, an expanding export market, and a tendency for marketing services per unit of product to increase are expected to strengthen the demand for services of firms engaged in assembling, processing, and distributing farm products.

Marketings by farmers in the first 9 months of 1965 have about equaled those in the same period of 1964, and the total for this year is likely to be as large as last year's record volume. The volume of products marketed next year should continue large. More farm products are being produced this year than last and the total probably will exceed the record output of 1963. Total production of crops this year has surpassed earlier records. Much of this year's large output will be marketed in 1966. Unless weather is unfavorable, production next year should be near this year's large volume.

Output of products manufactured from farm-produced raw materials has increased this year. Production of the food manufacturing industry, as measured by the Federal Reserve Board index, averaged 2 percent larger in the first 8 months of 1965 than in the like period last year. Output of textile mills was 10 percent larger this year. During the first 7 months, output of the apparel industry was 9 percent larger than a year earlier, and production of the tobacco industry was 2 percent larger.

Output of each of these industries has increased considerably more than population in the past 10 years. Rising per capita income has been a major factor

stimulating per capita use of the services of these industries. The apparel industry has had the greatest increase in output--60 percent from 1954 to 1964, when U.S. population grew 18 percent. People have more clothes now and more are purchased rather than made in the home. Output of the manufactured foods industry increased 33 percent. This increase resulted partly from substitution of more highly processed foods for less highly processed foods and factory-processed for home-processed foods. This form of substitution is one way consumers increase the volume of marketing services purchased with their foods. A recent study has shown that a 1 percent rise in consumer income has been accompanied by increases of 0.86 percent in consumer demand for food manufacturers' services and 0.35 in their demand for the farm-produced raw materials of manufactured food products. 2/

Factors Affecting the Demand for Marketing Services

Rising consumer incomes.--Disposable income per person was about 5 percent higher in the first 9 months of 1965 than in the same period of 1964. "Real" income per person was up 3.7 percent. Another increase in per capita disposable income is in prospect for next year.

Population growth.--Population of the United States increased 1.3 percent (2.5 million) from July 1964 to July 1965. This compares with increases of 1.6 percent (2.9 million) in 1960 and 1.8 percent (2.9 million) in 1955. Population is expected to grow about 1.4 percent annually in the next few years.

Outlook for foreign trade.--Foreign demand for U.S. agricultural products is expected to continue strong in 1965-66.

2/ Waldorf, William H., Demand for Manufactured Foods, Manufacturers' Services, and Farm Products in Food Manufacturing--A Statistical Analysis, USDA Tech. Bul. 1317, Dec. 1964.

The value of agricultural exports in 1965-66 is expected to exceed the \$6.1 billion level in each of the 2 past fiscal years. The slightly lower prices in prospect likely will be more than offset by an increased volume of shipments, particularly for commercial sales. Commercial exports accounted for 73 percent of the value of agricultural exports in 1964-65, and exports under Government programs accounted for 27 percent. These were approximately the same percentages as a year earlier.

Exports are a major market outlet for some commodities. For example, exports of wheat and flour accounted for 55 percent of the 1964 wheat crop. Fifty-one percent of soybean production was exported (including that exported in processed form), 60 percent of dried peas, and 56 percent of milled rice. Although corn was one of our important export commodities, only 15 percent of the crop was exported. However, about 45 percent of the U.S. corn crop did not leave the farm, so approximately a third of the corn sold from farms goes to export. In recent years a fifth or more of total crop production has been exported.

Wheat and flour was the most important group of agricultural exports in fiscal 1965, accounting for a fifth of the total value. Oilseeds and products accounted for a slightly smaller proportion. Feed grains were 15 percent of the total; animal products (excluding dairy products) 10 percent; and cotton, 10 percent.

Productivity and Expenditures for Plant and Equipment

Improvements in productivity in marketing farm foods continue to keep labor costs per unit of product from rising as much as hourly earnings of employees. Preliminary estimates indicate that unit labor costs may have declined slightly in 1963 and 1964. In food marketing, unit labor costs increased 8 percent from 1954 to 1964, while average hourly earnings rose 45 percent. (Data for 1965 are not available.) Output per man-hour in food

manufacturing increased by an average rate of 3.2 percent annually from 1948 to 1963. In food distribution (retailing, wholesaling, and away-from-home eating places) the rate of increase was 2.5 percent from 1948 to 1958. Output per man-hour probably has increased faster since 1958. In the tobacco products manufacturing industry, output per man-hour was 39 percent greater in 1962 than in 1952. Data are not available for industries marketing other farm products.

Technological improvements in facilities and equipment probably were more important than other factors in bringing about the growth in output per man-hour. This growth has been accompanied by large expenditures for new plants, warehouses, stores, and other facilities and for equipment.

Improvements in the quality of management and labor also have contributed much to the growth in productivity. Quality was improved by education, on-the-job training, experience, and other kinds of investment in human resources.

Expenditures for plant and equipment.-- Expenditures for plant and equipment by firms manufacturing foods and beverages are expected to reach \$1.17 billion in 1965, up 10 percent from 1964, according to surveys conducted by the Department of Commerce and the Securities and Exchange Commission (table 1). Plant and equipment expenditures made or planned this year by firms manufacturing textiles totaled 33 percent more than in 1964. Expenditures by railroads and other transportation firms also have increased significantly.

Among the factors stimulating these expenditures have been (1) expanding markets, (2) innovations in cost-reducing equipment and facilities, (3) development of new products, and (4) the need to reduce costs in order to remain competitive. Other factors in recent years have been increased cash flow resulting from relatively high net income and from substitution of accelerated for straight-line depreciation, a decrease in the

average length of life of physical assets allowed by the Treasury in calculating depreciation, and the investment tax credit.

Capital expenditures for new facilities by firms operating retail food stores amounted to \$824 million in 1963 compared with \$673 million in 1958, according to a report of the Bureau of the Census. Those made by firms operating eating places totaled \$475 million in 1963 (no data available for 1958).

Since much of the improvement in output per man-hour has been achieved

by increased investment, it has been accompanied by rising depreciation charges. In food marketing, depreciation charges per unit of product in 1963 were 2 1/2 times those in 1947-49. Factors causing this increase included replacement of largely or completely depreciated assets with new and more costly assets, growth in the total volume of depreciable assets, rises in costs of assets, and increases in depreciation rates per dollar of assets. Depreciation rates have risen because of more rapid obsolescence, decreases in the service life of assets, and adoption of accelerated depreciation rates.

Table 1.--Investments in new plant and equipment by firms processing and transporting farm products, 1960-65

Year	Processing industries		Transportation	
	Food and beverage	Textile	Railroads	Other than rail
	<u>Billion dollars</u>	<u>Billion dollars</u>	<u>Billion dollars</u>	<u>Billion dollars</u>
1960	0.92	0.53	1.03	1.94
1961	.98	.50	.67	1.85
1962	.99	.61	.85	2.07
1963	.97	.64	1.10	1.92
1964	1.06	.76	1.41	2.38
1965 <u>1/</u> ..	1.17	1.01	1.62	2.79

1/ Estimates based upon anticipated capital expenditures reported by business in late July and August 1965.

Data from Securities and Exchange Commission and Department of Commerce.

Assembling and Wholesaling Farm Products

Marketing Grain

The volume of grain produced and marketed by U.S. farmers has increased steadily for many years--first because of increasing acreage and then because of greater yields and more off-farm processing. Grain stocks reached a record high in the 1960-61 marketing year with a total wheat supply of 2.7

billion bushels and a total feed grain supply of 230.6 million tons. Since 1960-61 the rise in wheat and feed grain production and marketings has slowed. The total grain supply has been reduced sharply.

The number of country grain elevators

decreased from 8,161 in 1948 to 7,653 in 1963. ^{3/} Sales per elevator, however, increased from \$497,000 to \$661,000, according to Census of Business. The number of establishments classified as terminal elevators in the Census of Business increased from 391 in 1948 to 633 in 1963. Average sales of this class decreased from \$7.2 million per elevator in 1948 to \$4.7 million in 1963. Many large elevators have been erected in grain-producing areas since 1948 that are considered to be terminal rather than country elevators because they receive grain from other elevators and provide official grading and weighing services--as well as performing the normal functions of a country elevator. In the grain trade, these are called "subterminal" elevators to distinguish them from terminal elevators located in the market centers. These "subterminal" elevators have accounted for the decrease in the average size of terminal elevators since 1948.

Growth in the number of subterminal elevators also has resulted in less of the grain moving through the major terminal markets. In 1964, 22 percent of the grain sold from farms was channeled through 14 U.S. grain markets formerly considered as the major terminal markets, compared with 58 percent in 1949 and 82 percent in 1939. ^{4/} Much of the grain handled by subterminal elevators moved directly to processors and exporters.

The percentage of the grain storage capacity utilized has decreased in recent years as carryover stocks of grain have declined. Total capacity of storage elevators and warehouses was less than 50 percent occupied on January 1, 1965. Many facilities in less favorable locations were empty and some were being dismantled.

Flour and meal mills numbered 617 in 1963 compared with 1,243 in 1947. The

value of products shipped by these establishments amounted to \$2.2 billion in 1963, down from \$2.5 in 1947. The North Central Region accounted for 60 percent of this total in 1963, up from 56 percent in 1947. The South Atlantic and South Central Regions together accounted for only 15 percent of the total U.S. value of shipments in 1963 compared with 20 percent in 1947, although a few new mills were constructed in the Southeast. Proportions for other regions changed little. In 1963, the Northeast accounted for 12 percent; the Mountain Region, 5 percent; and the Pacific States, 8 percent.

Feed manufacturing plants decreased in number from 2,688 in 1947 to 2,587 in 1963. But the total value of products shipped from these mills increased from \$2.1 billion to \$3.9 billion. This big gain resulted largely from the increased use of commercially-processed feed. The North Central Region continued to account for more than a third of the value of products shipped by feed mills--37 percent in 1963 compared with 36 percent in 1947. The South Atlantic and South Central States accounted for a considerably larger share in 1963 than in 1947--36 percent compared with 24 percent. This increase resulted partly from rapid growth in broiler production in the area. The share produced in the Northeast and Middle Atlantic States declined to 14 percent in 1963 from 26 percent in 1947 and the value of shipments increased only slightly while the U.S. total nearly doubled. Combined value of shipments in the Pacific and Mountain States represented 13 percent of the U.S. total in both years.

These changes in the grain marketing system are expected to continue in the immediate future. Provisions in the Food and Agricultural Act of 1965 relating to grain are to remain in effect for at least 4 years. This provides some certainty for

^{3/} In 1948, the majority of country elevators were "line" elevators--those owned by companies owning more than 1 elevator. In 1963, grain producers' cooperatives owned a majority.

^{4/} The 14 markets formerly considered as the major terminal markets include Chicago, Duluth, Hutchinson, Indianapolis, Kansas City, Milwaukee, Minneapolis, Omaha, Peoria, Sioux City, St. Joseph, St. Louis, Toledo, and Wichita.

longer-term decisions that should benefit the industry.

Direct Buying of Cotton

During the past few years, a few textile manufacturing firms have bought cotton directly from growers or growers' agents rather than from long-established local and central market firms. Data on direct mill purchases from growers are not available, but reliable trade sources estimate that the total fluctuated widely during the late 1950's and early 1960's and then increased sharply in the 1964-65 season. Although direct buying is not presently a Belt-wide practice, developments leading up to it may cause it to be more widely adopted.

The major reason some mills have turned to direct buying from growers is their need to be more selective in buying cotton to meet their requirements. Increased selectivity is needed because of higher speed equipment and the nature of much of the lint cotton now available. Direct buying from growers enables mills to specify drying and cleaning practices at the gin to preserve the natural properties of the fiber. For this reason, trade sources report mills have obtained better performing cotton than they could through traditional marketing channels. Tracing these developments provides insight into a major problem confronting cotton in its competitive encounter with manmade fibers.

The rapid adoption of cotton harvesting machines, and the resulting increase in roughly harvested seed cotton, have brought about major changes at all levels of cotton marketing. During the past decade, when the proportion of crops harvested mechanically increased from about one-fifth to four-fifths, mills experienced increasing difficulties with the spinnability of cotton.

Before machines were used, the bulk of U.S. cotton was picked clean, and, if necessary, sun dried--since it was not possible to separate the seed from the

lint with gins then in existence unless the cotton was clean and dry. Differences in grade were closely and directly related to differences in processing performance and in quality and value of yarn produced. Hence, the value of cotton to mills was easily transmitted back to producers through the pricing system. This strong grade-price relationship, adequate for at least 50 years, persisted during the late 1940's and the 1950's when mechanical harvesting was expanding in all areas of the Cotton Belt.

Accompanying the increase in mechanical harvesting was an increase in the quantity of cotton classed in the lower grades. As a result, price differentials for grade widened. For example, from 1952 to 1957 the difference between prices for Strict Low Middling and Middling increased from 132 points to 387 points; in comparison, the difference between 1 inch and 1 1/16 inch staple increased from 68 to 173 points for the same period.

Because of grower dissatisfaction with this development, ginning engineers developed drying and cleaning equipment to reduce the trash in ginned lint, thereby improving its grade. To retain their volume, ginners were forced to install this equipment. In many instances farmers were able to net more dollars per bale by sacrificing staple length and weight in order to receive premiums for higher grades. Grade improvement could be achieved by reducing foreign material in the lint, but staple length and other fiber properties were adversely affected. Thus, grade designations such as Middling and Good Ordinary became less meaningful. Mill purchasing departments have pointed to these adverse effects for the past 10 to 15 years, and both private and public research results support their claims. However, to satisfy their farmer customers, the majority of ginning firms increased the pieces of conditioning equipment in their plants, and mills continued to have major difficulties in spinning the "manufactured" higher grades of cotton.

These developments motivated mills to buy cotton directly from growers and to specify the amount of gin cleaning and drying. Although it is trashy, it has longer staple length and other quality characteristics for efficient mill operation and high quality products. To be attractive, the price has to provide growers at least as many dollars per bale as they would realize from lighter-weight, higher-grade bales.

A recent technological development in cotton textile manufacturing may be a partial explanation of the rapid increase in mill-grower contracts for cotton ginned with a minimum of gin conditioning. Recently introduced crusher rolls pulverize the trash in the card web and reportedly greatly reduce its adverse effect in subsequent steps of manufacturing. Thus, mills may find it more profitable to use trashier cotton that still possesses its original length, length uniformity and distribution, and other important spinning properties.

Futures Trading in Cattle

Futures trading in fed steers is a notable recent development in marketing during the past year. Use of this new arrangement in the market may greatly affect those in the business of feeding, buying, and selling of cattle. But the extent of its potential influence is not as yet clear.

Anyone with the initial margin of \$500 can buy or sell a contract for 25,000 pounds of Choice steers (USDA grade) for April, June, August, October, December, or February delivery in Chicago or Omaha. In August of this year, 8 months after the start of trading, the unliquidated contracts in cattle futures totaled over 4,300--roughly 100,000 head. From August through October, open contracts receded to about 3,000. While these futures commitments are less than 3 percent of the average number of cattle on feed in the North Central States in the first half of this year, they are enough to show the workings of futures trading in cattle.

Since futures trading in cattle is not regulated under the Commodity Exchange Act, there are no reporting requirements--hence, no official information on the composition of trading. It is known that various cattle interests, including cattle feeders, cattle dealers, and packers have traded in futures. It is also apparent that outside traders have entered the market.

Futures trading provides a means to sell the services of the feedlot. This is now done, particularly in the Far West, by "custom feeding." With futures trading in fed cattle, hedgers provide the equivalent of custom feeding. Buyers of such services are the unseen purchasers of futures. There is little difference in theory between (1) buying feeder steers and hiring a custom feedlot to feed the animals for 6 months and (2) buying futures contracts for delivery of fed cattle in 6 months. The major difference is that futures trading increases access to the buying and selling of feedlot services.

Feeders may benefit more from futures trading than other cattle interests. Cattle feeding tends to become more specialized, and hedging would facilitate this tendency. By hedging, the feeding margin might be established in advance, thereby attracting more capital into the operations.

But there are limitations. With deliveries possible both at Chicago and Omaha (at a stipulated differential), the existing futures contract terms would seem to be most satisfactory to feeders located in the heavy feeding areas extending west to the Rockies. Producers in the Far West and Southwest probably would find the present contract less satisfactory because of geographical independence of cash market prices. Similarly, some Corn Belt producers of beef of other than stipulated qualities, classes, or weights, might gain less by hedging.

Experience has cast light on some practical issues and problems associated with the functioning of futures trading machinery. A substantial volume of open

commitments was built up in the first 4 delivery months; however, all but a few contracts were settled in advance of the delivery period. The few loads of cattle that were delivered to satisfy the outstanding contracts were handled, penned, graded, weighted, and delivered in Chicago and Omaha public stockyards without congestion. Facilities for handling larger volumes of deliveries apparently are available.

The great bulk of the outstanding sales hedges were canceled by the purchase of offsetting futures contracts--in line with classical opinions of how futures trading works. Hedgers who chose to "buy in" their hedges rather than deliver sell their cattle in the cash market. There is a cost of making (and taking) delivery in futures markets as well as in cash markets. This cost in the futures market sets a range within which settlement by offset takes place. Variations of the futures price within this range might work to the detriment of either the hedger

or the futures buyer, depending on circumstances.

Experience to date indicates a tendency for futures prices during the liquidation month to rise above cash prices by \$0.50 to \$1.00 per 100 pounds. Hedgers who have incurred this cost may question the benefits of hedging. Further experience with futures trading will clarify this issue and perhaps point to the elements of cost that can be reduced.

Apart from this, the viability of futures trading depends on attracting a substantial speculative interest on the buying side. If the volume of hedging is to expand, enlargement of such interest will be needed. There are many reasons why investors might choose to buy cattle futures but their decision to buy, may depend largely on their ability to forecast cattle prices. Here, too, further experience will be needed to see whether sufficient speculative interest will enter into futures commitments on terms that would be satisfactory to hedgers.

Coming Developments in Transportation

Railroads are large carriers of agricultural commodities. 5/ To compete with other carriers, railroads are innovating in equipment, methods, and rate-making principles at a rapid pace. Continued innovations may give them the flexibility and cost of service required to increase their share of agricultural traffic in 1966, and perhaps permit them, in some instances, to regain traffic formerly lost to trucks and barges.

Following World War II, the railroads seemed to view competition from trucks and barges as relatively unimportant. They applied for and were granted several general rate increases. In many instances, freight rates more than doubled. Rail

freight rates indexes increased up to 1957 for all agricultural commodities and to 1958 for most commodity groups. 6/

By 1958, it was generally recognized that rail freight rate increases were preventing the railroads from sharing in traffic increases. Tonnage measures of rail traffic held relatively constant between 1946 and 1963. However, total intercity freight traffic over the same period increased from 904 billion to 1,463 billion tons. Practically all increased traffic was being carried by trucks, barges, and pipelines. As a result, railroads' share of the total intercity freight traffic dropped from 66 percent in 1946 to 43 percent in 1963. 7/

5/ In particular, refer to the following issues of the Marketing and Transportation Situation: November 1962, pp. 26-32; November 1963, pp. 31-42; May 1964, pp. 12-13; and May 1965, pp. 25-29.

6/ Marketing and Transportation Situation, November 1963, page 13.

7/ Annual reports of the Interstate Commerce Commission.

Innovations in Equipment and Methods

Here are a few of the major developments in the technology of railroading as they relate to transportation of agricultural products in 1966 and beyond.

Piggyback--The hauling of trailers on flat-cars over the Nation's railroads has also grown in recent years. In 1955, "piggyback" revenue carloadings amounted to 168,150. By 1964, these had grown to 890,216 and were estimated to be in excess of 1,000,000 in 1965. 8/

No aggregate data are available to show what proportion of the total U.S. piggyback traffic is accounted for by agricultural commodities and products. However, piggyback traffic in fresh fruits and vegetables from California to out-of-State points increased from 3,599 car equivalents in 1963 to 8,832 in 1964. 9/ This represents an increase of 145 percent in 1 year. Piggyback traffic accounted for 1.3 percent of all out-of-State shipments of California fresh fruits and vegetables in 1963 and 3.0 percent in 1964. As a percentage of rail movements of fresh fruits and vegetables out of California, piggyback movements accounted for 2.0 percent in 1963 and 4.6 percent in 1964.

Increases in piggyback movements out of California from 1963 to 1964 varied widely among commodities. Lemons increased from 28 car equivalents in 1963 to 311 in 1964. Oranges increased from 253 to 1,539. On the other hand, celery car equivalents increased by only 56--from 165 to 221, and cantaloupe car equivalents showed a decline from 414 to 287.

Piggyback service from California was available to only a few destinations in 1963 and 1964. In 1965, service was extended to many points in the South and other areas east of the Mississippi River. In view of this expanded service area, piggyback movements of fresh fruits and vegetables from California likely will increase in 1965, and it would seem reasonable to expect further increases in 1966.

"Big John" hopper cars--Over a period of years, the Southern Railway System helped to design and later purchased several hundred jumbo size, aluminum hopper cars. These cars can haul about twice the payload of grain and other dry bulk items customarily hauled in conventional boxcars. 10/

Between 1961 and 1964, the number of covered hopper cars owned by Class I railroads rose from 65,886 to 81,168; and average capacity from 69.3 tons to 74.1 tons per car. Average capacity had been stable from 1955 or earlier up through 1961 at about 69 tons. 11/

Southern Railway put lower rates into effect in 1963 for movements of grain in "Big John" cars from crossing points on the Mississippi and Ohio Rivers to points in the Southeast served by the Southern. Other railroads established similar rates for movements of grain in standard boxcars. After considerable review by the Interstate Commerce Commission and the courts, the Southern's special rates for "Big John" movements were, on September 10, 1965, declared to be lawful and similar special rates of other railways for ordinary boxcar movements to be unlawful. 12/ Thus, it seems

8/ Association of American Railroads, Statistics of Railroads of Class I in the United States, Years 1954 to 1964, p. 5.

9/ These data were obtained from California Carlot Shipments, Fruits and Vegetables, 1963 and 1964, released by the California Crop and Livestock Reporting Service and Federal-State Market News Service, Sacramento, Calif.

10/ Ivon W. Ulrey, "Developments in Transportation," Marketing and Transportation Situation, November 1963, p. 40.

11/ Association of American Railroads, Statistics of Railroads of Class I in the United States, Years 1954 to 1964, p. 8.

12/ Interstate Commerce Commission, Grain in Multiple-car Shipments--River Crossings to the South, Investigation and Suspension Docket No. 7656, September 10, 1965, p. 77.

likely that those railroads competing with the Southern will initiate this type of service in order to compete for grain traffic.

Refrigerator cars.--The average capacity of refrigerator cars owned by the railroads has also been greatly increased in recent years. Before 1959, average capacity was approximately 39 tons, but by 1965 it had increased to 55.3 tons. Accompanying this increase in average capacity was a remarkable increase in the number of refrigerator cars owned by the railroads from 20,541 in 1959 to 37,422 in 1964. These 2 trends increased total capacity of refrigerated cars owned by the railroads from 875,000 tons in 1959 to 2,067,000 tons in 1964. ^{13/} Railroad-owned refrigerator cars at the end of 1964, however, accounted for only about 35 percent of all refrigerator cars in use.

Innovations in Ratemaking

Many agricultural commodities are exempt from the economic regulatory provisions of the Interstate Commerce Act when carried by trucks and barges but not when hauled by railroads. Rates for exempt commodities are set by negotiations between truck and barge operators and shippers whereas a railroad may have to get over a series of administrative and legal hurdles before it can make a rate change effective permanently.

In 1958 Congress, recognizing the increasingly effective and strong competition in transportation, altered the rule of ratemaking in the Interstate Commerce Act. It was amended to read: "In a proceeding involving competition between carriers of different modes of transportation subject to this Act, the Commission, in determining whether a rate is lower than a minimum reasonable rate, shall consider the facts and circumstances attending the movements of the traffic by

the carrier or carriers to which the rate is applicable. Rates of a carrier shall not be held up to a particular level to traffic of any other mode of transportation, giving due consideration to all the objectives of the national transportation policy declared in this Act." This amendment was a factor encouraging regulated carriers, particularly railroads, to put rate reductions into effect. Rail freight rate indexes for most agricultural commodities and many industrial products have dropped several percentage points since 1958 (table 9, p. 35).

"Multi-minimum" and "flat-per-car" rates.--For fruits and vegetables, some railroads have offered shippers a schedule of rates, decreasing the per unit rate as the weight of the load per car increased. Other railroads varied this ratemaking procedure slightly by establishing a flat rate per car and permitting shippers to load as many pounds as they desired per car. Rates for multiple-car shipments have also been established. Truck competition for fresh fruits and vegetables has been growing in recent years. ^{14/}

"Point-to-point" rates.--One of the major ways in which railroads have lost traffic to trucks has been by trucks carrying the "short haul" traffic formerly carried by railroads at blanket rates. Groups of origins and destinations, for which uniform rates were applied on all movements between the groups, were sometimes quite large. Truckers competed for the traffic between the origins and destinations closest together, leaving the longer hauls for the rails. Railroads sought a ratemaking principle that would reflect this competitive situation and permit them to compete with trucks for the shorter hauls. The principle they adopted was the so-called "point-to-point" ratemaking. It is a "mileage-scaled" form of ratemaking, and has been applied so far primarily to grain traffic in the East.

^{13/} Association of American Railroads, Statistics of Railroads of Class I in the United States, Years 1954 to 1964, p. 8.

^{14/} Marketing and Transportation Situation, May 1965, pp. 25-29.

"No frills" rates.--Certain railroads, including the Southern and the New York Central, have established low rates on through movements of grain with no stops in transit for milling or storage and with little free time for loading and unloading. Such rates are called "no frills" or "bare bones" rates, and have been justified to ICC on the basis of reduced costs to the carriers.

In a few instances, proposals for "cost-oriented" rates have been accompanied by proposals of separate charges to be applied for stops in transit and increased charges for additional loading or unloading times. Such proposals are said to result in "a la carte" rates. This separation of charges for specific services permits the railroads to meet truck and perhaps barge competition for point-to-point traffic of some shippers without depriving other shippers of the additional services at higher rates. These added services were formerly supplied on request by railroads at uniform "transit" rates which were charged whether or not the shippers wanted the services.

Outlook

Railroads are adopting new types of equipment and new ratemaking principles in their attempts to share in the increased transportation job of the Nation. Whether these steps will offset the gains made by trucks and barges remains to be determined in 1966 and the years to come.

Of course, innovations in transportation equipment are by no means limited to rail equipment. Barges have been improved in tonnage capacities; powerful towboats have been engineered; locks and canals have

been or are being modernized to permit larger, more economical tows. Specialized truck equipment, particularly for the movement of grain and livestock, has been developed; the towing of 2 trailers by 1 power unit has grown in recent years, primarily in the Western States; the Interstate and Defense Highway networks have been and are being expanded. New and large cargo planes are in use; airport runways and terminal facilities have been improved. Container units for export shipments of meats, poultry, and citrus products have been developed that can travel to port areas on barges, trucks, or rail cars. These containers have built-in refrigeration capabilities. Increased exports of grain are moving in large, modern ships directly from Great Lakes and other ports. Livestock movements to foreign markets, particularly Italy, by water and air also have increased.

Railroads must continue to innovate and reduce costs to retain their position as the major haulers of agricultural products. It appears that they intend to do so. As the railroads fight to retain traffic, long established geographic and commodity rate relationships will be altered. Some of these may be temporary due to lags in adjustments of rates by other railroads. Others may be longer lasting. Uncertainty concerning future rate relationships will have a dampening effect upon investments in new production and marketing facilities having high fixed cost and upon relocations of current facilities. This uncertainty will be most pronounced for grain and grain-related industries because of the relatively greater reliance on rail transportation by these industries. However, fruit and vegetable industries will also be considerably affected.

Processing Farm Products

Outlook for New Products

An increasing flow of new processed products of farm origin can be expected during the forthcoming year because industry regards new product development as the main source of growth and profits. But new products also are important to consumers and farmers. New product

development has focused mainly on 2 areas: Quality improvement and convenience-in-use. Farmers benefit as processing techniques extend marketing seasons, provide alternative outlets, and increase availability of their production. In addition, some of the newer processing technology allows farm products to compete effectively with synthetics.

In the food area, a large number of assorted new products will make their debut in the year ahead. Since many of these new products actually are derived from more basic developments in food processing, a review of recent developments in the 3 main areas of food processing--namely canning, freezing, and dehydration--might be useful.

The food canning industry today comprises about 2,200 canneries producing about 1,200 different canned food items. Volumes exceed 21 billion pounds annually. The canning industry is making increasing use of several processing innovations. Length of exposure to heat in the canning process has a deleterious effect on quality. The increasing use of high-temperature, short-time (HTST) technique is behind processor claims of "new and improved flavor." Another innovation of interest is the development of aseptic canning. Here, the product and can are sterilized independently. This maintains quality since the product can be sterilized much more quickly outside than within the can. This technique is used in the process for sterilized milk concentrate developed by the University of Wisconsin and USDA researchers. This product--in development since the early 1950's--is in test market now and could be available to consumers in the forthcoming year. Research indicates that the product will only take a small part of the total beverage milk market. Yet, only a small part of a 25-billion-pound market could be profitable and have a significant impact on the dairy-producing and processing industries.

Hydrostatic preservation is another new canning development. In this method, the filled cans or bottles move up and down through towers that control pressure and heat. This continuous system saves steam, cooling water, and floor space. The possibility of reduced operational costs can lead to lower prices to consumers for canned goods.

The frozen food industry has a 9-billion-pound-per-year volume. Vegetables, poultry, concentrates, and prepared items have had the greatest recent growth.

Frozen boil-in-the-bag items will enjoy the greatest expansion in the year ahead. Led by successful development of film material and sauce, boil-in-the-bag items now can provide consumers with a great variety of high-quality products with built-in maid and chef services. These prepared items not only utilize vegetables but also large quantities of other farm products, such as butter, eggs, and flour necessary for the sauces.

While processing costs are high, low-temperature freezing at minus 320°F., by the use of liquid nitrogen as one example, will provide consumers with items such as whole avocados and fresh tomato slices in the next year or so--products heretofore not available in frozen form. The method also imparts to some products such as green beans, melons, and seafoods better quality end-products than those now produced by usual freezing methods. Low-temperature freezing also is being applied to bakery products, and if properly handled insures oven-like freshness upon thawing.

Dehydration's recent advances include new methods of heat injection and water removal. Continuous-belt tunnel driers have replaced the older atmospheric tunnel driers. Fluidized bed-drying of vegetables has become important. Drum-drying has recently been adapted for drying sweet potatoes, pumpkins, and applesauce. These developments have and will provide consumers with dehydrated products of high quality. Another process developed in the early 1950's showing signs of commercial life is the essence-recovery method of concentration and drying of fruit juices, developed by the USDA. Although the system has been used widely for beverage bases and in jams and jellies, it has not been used as widely for fruit juices and powders. However, in the next year or so it is likely that fruit juice powders and high density concentrates with restored essence will become available to household and institutional consumers.

Freeze-dried foods are becoming more popular and several new products now in

the test market stage will become available nationally. An example is the use of freeze-dried fruits in breakfast cereals. Consumers can look forward to having freeze-dried bananas, strawberries, peaches, and blueberries with their corn flakes in the year ahead. Another product moving out of the test markets in the coming year will be freeze-dried soluble coffee.

Irradiation has been discussed as a new processing method for many years. Recently, the Food and Drug Administration approved fresh bacon, potatoes, and grain for radiation processing and the U.S. Army is now submitting bids for procurement for these items. Radiation may be used as a sterilization method to destroy all bacteria and other microorganisms in food. Lower doses of radiation can be used for destroying surface bacteria and other microorganism in food and thereby extend shelf life of fresh fruits such as strawberries.

The food service market is quite often the proving ground for new food products and services. Thus, innovations now in use in the food service industry may be forerunners of innovations in the home.

Innovations in convenience-type foods are adopted rapidly in the institutional market. The away-from-home eating market consumes about one-third of the frozen foods now used in this country. Two-thirds of the dried potatoes are in packages of a size that go mainly to the institutional market. Precut meat items, such as steaks, chops, roasts, cutlets, and patties help in both quality and quantity control. They reduce labor costs and equipment and space needs and improve inventory control. Precooked foods have not been popular in this market, but some partially-cooked items are now accepted. The food service industry was the first major user of many of the dehydrated foods presently available on the household market. Dried onions, dried eggs, and dried whole milk are

examples.

New chemical treatment of fiber--such as permanent-crease cotton fabrics--may slow the trend towards loss of markets to synthetics. Wool researchers have now remove "shrink" from wool. This new wool is now on a more equal footing with synthetic fibers since it still retains its natural desirable characteristics. The Department's Wurlan process makes wool more launderable. Over a long period, cotton and wool have been holding their own in per capita usage, but have been losing in their share of new markets. U.S. cotton and wool consumption per capita has stayed at about 25 pounds per person for the past 30 years. In the same period, however, fibers other than cotton and wool increased from 2 to 14 pounds per capita. Cotton and wool had 92 percent of the market 30 years ago but have only 64 percent now. Total consumption of fibers has increased from 27 to 39 pounds per person.

Introduction of new convenience foods--Each year a number of new products are successful and prove to be of great value to producers and processors in their search for new markets and higher profits. However, for each such success, industry studies show that a much larger number of new products fail to win wide enough acceptance by grocers to justify production. Furthermore, of those new products that are accepted by grocers, only 1 in 3 is still on the shelf at the end of the first year.

The high rate of new product failure results in higher marketing costs which may be reflected in higher prices to consumers and lower returns to growers. A national survey by the Bjorksten Research Laboratories of Madison, Wis., shows that last year about \$3.25 billion was wasted by industry on new consumer and industrial products that failed. ^{15/} The huge economic waste resulting from new product failures offers reason enough to find more certain guidelines to successful new products.

^{15/} John Bjorksten, "Why New Products Fail," Drug and Cosmetics Industry, September 1965.

Economists in the Economic Research Service recently completed a study of the factors affecting sales of convenience foods. ^{16/} This study showed that the following factors, listed in order of their relative importance, were the principal ones affecting sales of a convenience food:

1. Cost per serving--sales tend to vary inversely with cost per serving.
2. Competition with other convenience foods of the same type--sales tend to vary inversely with the percentage of total sales of the product group accounted for by other convenience foods.
3. Total sales of the product group--sales tend to vary directly with total sales of all products in the group.
4. Cost per serving of largest-volume competing convenience food in the same product group--sales tend to vary directly with cost of principal competing product.
5. Availability--sales tend to vary directly with availability in retail stores.
6. Cost of corresponding fresh or home-prepared food--sales tend to be greater if cost of equivalent fresh or home-prepared food is relatively high.
7. Sales of principal competing convenience food--sales tend to vary directly with sales of largest-volume competing convenience food in the same product group. Wide acceptance by consumers of competing product may dispose them to try a similar product.

Processed Potatoes

The introduction and improvement of processed products has greatly changed the marketing of many products. One of these is potatoes. In recent years, the proportion of potatoes purchased by consumers in processed form has doubled. Product improvement probably has been the basic reason for this rise; other factors were increasing consumer incomes and growing demand for convenience foods. If present trends continue, about half of the potatoes purchased by consumers within the next 10 to 15 years will be in processed form.

Further, processing may have reversed the downward trend in per capita consumption of potatoes. At the turn of the century, consumers ate about 200 pounds of potatoes per person annually. By 1950, per capita consumption had declined to about 100 pounds. Since 1950, per capita consumption of fresh potatoes has continued to decline, but this decrease has been slightly more than offset by processed potatoes.

Per capita consumption of potato chips and shoestrings increased from 8 1/2 pounds (fresh equivalent basis) per capita in 1956 to about 15 pounds in 1964. Consumption of the newer-type products--dehydrated, frozen, and canned potatoes--has increased more rapidly, from 6 to nearly 20 pounds. Thus, the consumption of processed potatoes increased from less than 15 pounds to slightly less than 35 pounds. During the same period, consumption of fresh potatoes declined from 90 pounds to approximately 75 pounds per capita.

Because of the reduction in weight during processing, substantial savings in transportation are achieved by locating potato processing plants in production areas. In 1964, Idaho processed 60 percent of all the dehydrated, frozen, and canned

^{16/} Harp, Harry H., and Miller, Marshall E., Convenience Foods: The Relationship Between Sales Volume and Factors Influencing Demand, Econ. Res. Serv., USDA, Agr. Res. Rpt. 81, August 1965.

potatoes produced in the United States. Nearly half of the Idaho potato crop was processed. However, the proportion processed in Idaho is likely to decline. The increasing market for processed potatoes

accompanied by declining demand for fresh potatoes has brought about the establishment of processing plants in other producing areas, often by major food marketing corporations.

Distribution of Farm Products

Retail Food Stores and Eating Places

The number of retail grocery stores has continued to decline (table 2). Recently published data from the Census of Business for 1963 show a decline of about 6 percent since 1958. All of the decline was among stores with annual sales of less than \$300,000.

Decreases occurred in spite of the opening of many new supermarkets and "convenience" stores. Many of the new supermarkets replaced smaller and less well located stores. Some food chains, however, have opened new stores to have outlets in new shopping centers, although they already had nearby stores. The number of large stores increased from 1958 to 1963 as it did from 1954 to 1958.

Average sales per grocery store increased 28 percent from 1958 to 1963 compared with 39 percent from 1954 to 1958. Retail food store prices were about 1 percent higher in 1963 than in

1958, so price increases accounted for little of the increase in volume per store. These prices rose 6 percent from 1954 to 1958. Size per store increased because new stores often replaced smaller stores. Also, many of the stores built in the later period were larger than most built in the earlier period.

Grocery stores belonging to chains having 10 or more units made 44 percent of total grocery sales in 1964, the same percentage as in 1960.

Trade sources estimate that supermarkets associated with discount houses had totaled sales of \$2.8 billion in 1964, up from \$410 million in 1960. These stores accounted for 4.5 percent of total retail food store sales in 1964. These sources also report that 1 out of 3 discount houses has a food department.

The number of speciality retail food stores declined more from 1958 to 1963 than the number of grocery stores 17/.

Table 2.--Grocery stores: Number, total sales, and sales per store, 1963, 1958, 1954, and 1948

Year	Store	Sales	Sales per store
	Number	Million dollars	Thousand dollars
1963	244,838	52,566	215
1958	259,796	43,696	168
1954	287,572	34,901	121
1948	358,671	25,038	70

Compiled from Retail Trade, Census of Business, 1963, 1958 and 1954.

17/ Speciality food stores include meat markets, fish markets, fruit stores, vegetable markets, candy, nut and confectionary stores, dairy product stores, retail bakeries, egg and poultry dealers, and other stores.

There were 22 percent fewer speciality stores in 1963 than in 1958, compared to 6 percent fewer grocery stores.

Eating places numbered 223,876 in 1963, down 3 percent from those in 1958 (table 3). Many of these establishments were small and had no paid employees. The number having paid employees continued to increase--5 percent from 1958 to 1964 compared with 15 percent from 1954 to 1958.

Total sales by eating places increased 59 percent from 1954 to 1963. Sales adjusted for increases in prices rose 27 percent. ^{18/} Population increased 18 percent during this period. Food consumed in eating places apparently accounted for a larger proportion of total food consumption than in the earlier years. Rising consumer income per capita and increased travel are among the principal reasons for more frequent eating away from home.

Trading Stamps

The impact of trading stamps on food retailing continues to remain controversial. Recent studies and observations indicate that trading stamps as a promotional device for food retailers may be losing their effectiveness and may be declining in importance.

Recent press reports state that some of the national and regional chains have discontinued the use of stamps in their stores in some areas. Reports also state that some smaller chains and independents have taken on stamps when the large chains gave them up.

A survey by the Super Market Institute shows that the proportion of its member-supermarkets issuing trading stamps decline from 77 percent in 1963 to 70 percent in 1964. Also, a larger proportion of supermarkets operated by large chains

issued trading stamps than those operated by small chains. More than three-fourths of the supermarkets belonging to firms with sales greater than \$100 million gave stamps, compared with about half of the supermarkets belonging to firms with sales less than \$50 million.

A study by Cornell University of the operating results of food chains shows that the total cost of promotional giveaways, including trading stamps and other promotional devices, to chains in their sample declined slightly from 1963-64 to 1964-65. ^{19/} Further, examination of these data shows that only the smaller chains, those with sales less than \$100 million, reduced their expenditures for promotional giveaways; firms with sales over \$100 million increased these expenditures. The same study also shows that gross margins as a percentage of sales were lower for the group of smaller chains than for the group of large chains. Gross margins declined from the previous year for the small chains but increased for the larger chains.

The Progressive Grocer in its annual study estimates that stamps cost chain and independent food retailers \$680 million in 1964. Chain stores accounted for 62 percent of this expenditure. The total is about 1 percent of total retail food store sales in the United States as reported by the Department of Commerce.

Changing Outlets for Milk

Forty years ago fluid milk was distributed largely by delivery to homes. Today it is distributed by a wide variety of outlets including supermarkets, specialized dairy stores, convenience stores, vending machines, gasoline stations, drive-in dairies, and many other types of outlets. The proportion of fluid milk sold on home-delivery routes has declined from probably 80 to 85 percent of

^{18/} Total sales were adjusted by dividing by the index of prices of food consumed in eating places ("food away from home" index) published by the Bureau of Labor Statistics. This index increased 25 percent from 1954 to 1963.

^{19/} Wendell Earle and John Sheehan, Operating Results of food chains 1964-65, Cornell University.

Table 3.--Eating places: Number, total sales, and sales per establishment, 1963, 1958, 1954, and 1948

Year	Establishment	Sales	Sales per establishment
	Number	Million dollars	Thousand dollars
1963	223,876	13,919	62
1958	229,815	11,038	48
1954	195,088	8,731	45
1948	179,185	6,441	36
		With payroll	
1963	180,874	13,329	74
1958	172,701	10,220	59
1954	149,996	8,142	54
1948	141,163	5,983	42

Compiled from Retail Trade, Census of Business, 1963, 1958, and 1954.

the total 40 years ago to 25 to 35 percent of the total today. Recently, the share of total milk sales delivered to homes has changed little, if any, in many markets. It is likely to stabilize within a few years.

More supermarkets are adopting their own brand names for milk as well as for many other products. The use of retailer labels for milk will increase in the next few years. Generally, milk will be bottled for retailers by milk distributors.

Food Distribution Outlook

Continuing emphasis in 1966 will be given to improving diets of needy persons through domestic food distribution programs of the U.S. Department of Agriculture. By June 1966, the Food Stamp Program may be serving approximately 1 million low-income persons--well on its way toward becoming a national program with an estimated 4 million participants. The Program will replace Federal commodity distribution in many

areas. However, commodity distribution will continue to be the primary means of food aid during the next few years. Participation in commodity distribution programs will fluctuate seasonally--generally between 4 and 5 million persons. About 18 million school lunches will be served daily under the National School Lunch Program--up 1 million lunches from the previous year. In addition, substantial efforts will be made to extend the Program to schools in economically depressed areas and low-income neighborhoods where school lunches previously have not been available.

Food Stamp Program.--With passage of the Food Stamp Act of 1964, the Program shifted from a pilot to a permanent basis. After 3 years of testing, the pilot program was serving approximately 350,000 low-income persons in 43 localities. By June 1965, the Program was operating in 110 areas in 29 States and participation had risen to 632,000 persons. As of October 1965, the Program was operating in or openings were planned in 207

localities. Additional cities or counties will be designated for participation at periodic intervals.

Under the Food Stamp Program, participants exchange funds in amounts approximating normal food expenditures for food coupons of greater value. The Federal contribution is in the form of "free" coupons identical to those purchased by the households. The total value of coupons received (purchased, and "free") varies by household size and income and enable the household to obtain a more nearly adequate diet.

Coupons may be used in designated local retail food stores for the purchase of foods except for a few imported items. Retailers deposit coupons, like cash, in local banks.

During the year ended June 30, 1965, the average recipient paid \$10.39 for food coupons worth \$16.77. Thus, he received \$6.38 worth of "free" coupons per month. During the year, \$85.5 million in food coupons moved through retail food stores, of which \$32.5 million represented supplemental food purchasing power to low-income persons through bonus coupons.

Research findings indicate that the Food Stamp Program has been an effective mechanism for expanding food consumption and improving diets of recipients. The coupon purchase requirement helps to maintain normal food expenditures, so that "free" coupons are used for their intended purpose of providing supplemental foods. Recipients can spend coupons for a wide variety of foods of their own choice. These include fresh meats, milk and fruits and vegetables, all of which would be difficult to provide through a commodity distribution program.

The program is available to households receiving welfare assistance and to other low-income households which, for a variety of reasons, are not receiving welfare assistance. Eligibility criteria for the latter type of household are based upon

household income and size. Eligibility standards for all households are set in accordance with prevailing requirements for State public assistance programs, and vary by State.

Coupon purchase requirements within each family size increase with income. Therefore, as income increases, the payment by recipients for food coupons constitutes a higher percentage of the value of food coupons received. This has resulted in program operations being concentrated on households with very low incomes--where the need is greatest.

During June 1965, nearly two-thirds of the recipients of food coupons were members of households receiving public assistance, such as aid to the disabled, blind, aged, and dependent children or assistance under State or local general relief programs. The remainder were members of low-income households, such as those of unemployed workers--where food aid, in many instances, provides a primary source of assistance.

Commodity Distribution.--During the year ended June 1965, needy families received 1,140 million pounds of Federal foods valued at nearly \$227 million. During fiscal 1965 an average of about 5.3 million persons received Federal foods each month.

The number of participants has been dropping, partly reflecting shifts to the Food Stamp Program. In August 1965, about 4.5 million persons participated--down from 5.1 million in August 1964. By midwinter 1965-66, normal seasonal changes likely will result in participation by more than 5 million persons.

As of August 1965, Federal foods were offered to needy persons in 1,590 counties and 237 cities in the United States, and in Puerto Rico, the Virgin Islands, and the Pacific Trust Territories. Despite shifts to the Food Stamp Program, there was a net increase in the numbers of cities and counties served by the Program during the year, as States are encouraging participation by counties without food programs.

During the current fiscal year, an increasing number of counties and cities will transfer to the Food Stamp Program. However, new counties are entering. Quantities of Federal foods distributed to needy families probably will approximate about 90 percent of the level for the year ended June 1965. Distribution of foods to charitable institutions should remain at approximately the 1964-65 level.

National School Lunch Program.-- During the year ended June 1965, the National School Lunch Program was available to more than 35 million children enrolled in over 70,000 schools. On an average day, over 17 million lunches were served under the Program. This volume likely will increase by approximately 6 percent during the current year.

Special efforts are being made to extend the Program to more children in the neediest schools--where a high percentage of children are needy and would qualify for lunches free or at reduced prices. A fund of \$2 million has been appropriated to carry out a 1-year experimental program toward this objective.

Program expansion may be accelerated through passage of the Aid-to-Education Act of 1965. Construction of new school lunch facilities is one of the authorized uses for funds appropriated under this legislation.

During the past year, \$130.4 million in funds and \$59.5 million in Section 6 foods were distributed to schools under the Program. An additional \$212.9 million in Section 32 and 416 foods were distributed to schools with nonprofit lunch services--most of which were participating in the National School Lunch Program. These Federal contributions helped maintain school lunch prices at levels within the means of most families. Indirectly, these Federal contributions helped finance the cost of the approximately 1.7 million lunches served each day to needy children free or at reduced prices.

Special Milk Program.-- During the year ended June 1965, nearly 3 billion half-pints of milk were served to children at reduced price under this Program.

